

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1-30. (canceled).
- 1 ~~31.~~ (previously presented) An isolated monoclonal antibody MJ-170 produced by hybridoma cell line MJ-170 on deposit with the American Type Culture Collection (ATCC) as accession number PTA-5286.
- 2 ~~32.~~ (previously presented) An isolated monoclonal antibody MJ-171 produced by hybridoma cell line MJ-171 on deposit with the ATCC as accession number PTA-5287.
- 3 ~~33.~~ (previously presented) An isolated monoclonal antibody MJ-172 produced by hybridoma cell line MJ-172 on deposit with the ATCC as accession number PTA-5288.
- 4 ~~34.~~ (previously presented) An isolated monoclonal antibody MJ-173 produced by hybridoma cell line MJ-173 on deposit with the ATCC as accession number PTA-5302.
- 5 ~~35.~~ (previously presented) A hybridoma cell line MJ-170 on deposit with the ATCC as accession number PTA-5286.
- 6 ~~36.~~ (previously presented) A hybridoma cell line MJ-171 on deposit with the ATCC as accession number PTA-5287.
- 7 ~~37.~~ (previously presented) A hybridoma cell line MJ-172 on deposit with the ATCC as accession number PTA-5288.
- 8 ~~38.~~ (previously presented) A hybridoma cell line MJ-173 on deposit with the ATCC as accession number PTA-5302.
39. (canceled).
- 9 ~~40.~~ (previously presented) An antibody of claim ^{1 2 3 4}~~31, 32, 33 or 34~~, wherein said antibody is covalently linked to a cytotoxic agent or a prodrug of a cytotoxic agent.
- 10 ~~41.~~ (previously presented) The antibody of claim ⁹~~40~~, wherein said cytotoxic agent is a small drug molecule.

11 ~~42~~⁹ (previously presented) The antibody of claim ~~40~~⁹, wherein said cytotoxic agent is a maytansinoid, a taxoid, or a CC-1065 analog.

12 ~~43~~^{1 2 3 4} (original) A composition comprising an antibody of claim ~~31, 32, 33~~^{1 2 3 4} or ~~34~~⁴ and a pharmaceutically acceptable carrier.

13 ~~44~~⁹ (previously presented) A composition comprising the antibody of claim ~~40~~⁹ and a pharmaceutically acceptable carrier.

14 ~~45~~¹² (withdrawn) A method of treating a subject having a cancer, comprising administering to a subject having a cancer a therapeutically effective amount of the composition of claim ~~43~~¹².

15 ~~46~~¹³ (withdrawn) A method of treating a subject having a cancer, comprising administering to a subject having a cancer a therapeutically effective amount of the composition of claim ~~44~~¹³.

47-48. (canceled).

16 ~~49~~¹⁴ (withdrawn) The method of claim ~~45~~¹⁴, wherein said cancer is a cancer wherein Muc1 or Muc16 is overexpressed.

17 ~~50~~¹⁵ (withdrawn) The method of claim ~~46~~¹⁵, wherein said cancer is a cancer wherein Muc1 or Muc16 is overexpressed.

18 ~~51~~¹⁴ (withdrawn) The method of claim ~~45~~¹⁴, wherein said cancer is ovarian cancer or breast cancer.

19 ~~52~~¹⁵ (withdrawn) The method of claim ~~46~~¹⁵, wherein said cancer is ovarian cancer or breast cancer.

20 ~~53~~ (previously presented) An isolated antibody that specifically binds to a Muc1 peptide selected from the group consisting of:

- a) QLTLAFREGTINVHDTVETQFN (SEQ ID NO:8);
- b) QYKTEAASRYNLTISDVSVSD (SEQ ID NO:9);
- c) FLQIYKQGGFLGLSNIKFRPG (SEQ ID NO:10); and
- d) VPPFSAQSGAGVPGWGIA (SEQ ID NO:12).

21 ~~54~~ (previously presented) An isolated antibody that specifically binds to a Muc16 peptide selected from the group consisting of:

- a) SSVLVLDGYSPNRNEPLTGNS (SEQ ID NO:14);
- b) TNYQRNKRNIEDALNQLFRN (SEQ ID NO:15);
- c) FRNSSIKSYFSDCQVSTFRSV (SEQ ID NO:16);
- d) SVPNRHHTGVDSL CNFSPLARRV (SEQ ID NO:17); and
- e) DRVAIYEEFLRMTRNGTQLQNFTLDRSS (SEQ ID NO:18).

~~22~~ ^{20 21} ~~55~~. (currently amended) The antibody of claim ~~53~~ or ~~54~~, wherein said antibody is selected from the group consisting of a monoclonal antibody, a recombinant antibody, an antigen-binding a-fragment of a recombinant antibody, a humanized antibody, and an antibody displayed upon the surface of a phage.

~~23~~ ^{20 21} ~~56~~. (previously presented) The antibody of claim ~~53~~ or ~~54~~, wherein said antibody is covalently linked to a cytotoxic agent or a prodrug of a cytotoxic agent.

~~24~~ ²³ ~~57~~. (previously presented) The antibody of claim ~~56~~, wherein said cytotoxic agent is a small drug molecule.

~~25~~ ²³ ~~58~~. (previously presented) The antibody of claim ~~56~~, wherein said cytotoxic agent is a maytansinoid, taxoid, or CC-1065 analog.

~~26~~ ^{20 21} ~~59~~. (previously presented) A composition comprising the antibody of claim ~~53~~ or ~~54~~ and a pharmaceutically acceptable carrier.

~~27~~ ²³ ~~60~~. (previously presented) A composition comprising the antibody of claim ~~56~~ and a pharmaceutically acceptable carrier.

~~28~~ ²⁶ ~~61~~. (withdrawn) A method of treating a subject having a cancer, comprising administering to a subject having a cancer a therapeutically effective amount of the composition of claim ~~59~~.

~~29~~ ²⁷ ~~62~~. (withdrawn) A method of treating a subject having a cancer, comprising administering to a subject having a cancer a therapeutically effective amount of the composition of claim ~~60~~.

~~30~~ ²⁸ ~~63~~. (withdrawn) The method of claim ~~61~~, wherein said cancer is a cancer wherein Muc1 or Muc16 is overexpressed.

~~31~~ ²⁹ ~~64~~. (withdrawn) The method of claim ~~62~~, wherein said cancer is a cancer wherein Muc1 or Muc16 is overexpressed.

~~32-65~~^{28 29} (withdrawn) The method of claim ~~61~~²⁸ or ~~62~~²⁹, wherein said cancer is ovarian cancer or breast cancer.

~~33-66~~ (withdrawn) A method of screening a subject for cancer, comprising:
(a) measuring the amount of Muc1 in a biological sample obtained from a subject using the antibody of claim ~~53~~²⁰; and

(b) comparing the amount of Muc1 measured in (a) to the amount of Muc1 in a cancerous and a non-cancerous control, thereby screening a subject for cancer.

~~34-67~~ (withdrawn) A method of screening a subject for cancer, comprising:
(a) measuring the amount of Muc16 in a biological sample obtained from a subject using the antibody of claim ~~54~~²¹; and

(b) comparing the amount of Muc16 measured in (a) to the amount of Muc16 in a cancerous and a non-cancerous control, thereby screening a subject for cancer.

~~35-68~~^{33 34} (withdrawn) The method of claim ~~66~~³³ or ~~67~~³⁴, wherein said cancer is ovarian cancer or breast cancer.

69-70. (canceled).

~~36-71~~ (previously presented) A hybridoma that produces an antibody that specifically binds to a MUC1 peptide selected from the group consisting of:

- a) QLTLAFREGTINVHDTVETQFN (SEQ ID NO:8);
- b) QYKTEAASRYNLTISDVSVSD (SEQ ID NO:9);
- c) FLQIYKQGGFLGLSNIKFRPG (SEQ ID NO:10); and
- d) VPPFSAQSGAGVPGWGIA (SEQ ID NO:12).

~~37-72~~ (previously presented) A hybridoma that produces an antibody that specifically binds to a MUC16 peptide selected from the group consisting of:

- a) SSVLVDGYSPNRNEPLTGNS (SEQ ID NO:14);
- b) TNYQRNKRNIEDALNQLFRN (SEQ ID NO:15);
- c) FRNSSIKSYFSDCQVSTFRSV (SEQ ID NO:16);
- d) SVPNRHHTGVDSL CNFSPLARRV (SEQ ID NO:17); and
- e) DRVAIYEEFLRMTRNGTQLQNFTLDRSS (SEQ ID NO:18).